

Land and Resource Use Restrictions at the former Fabco Fabricating Facility

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Fabco Fabricating Company

Franklin Township, Lenawee County

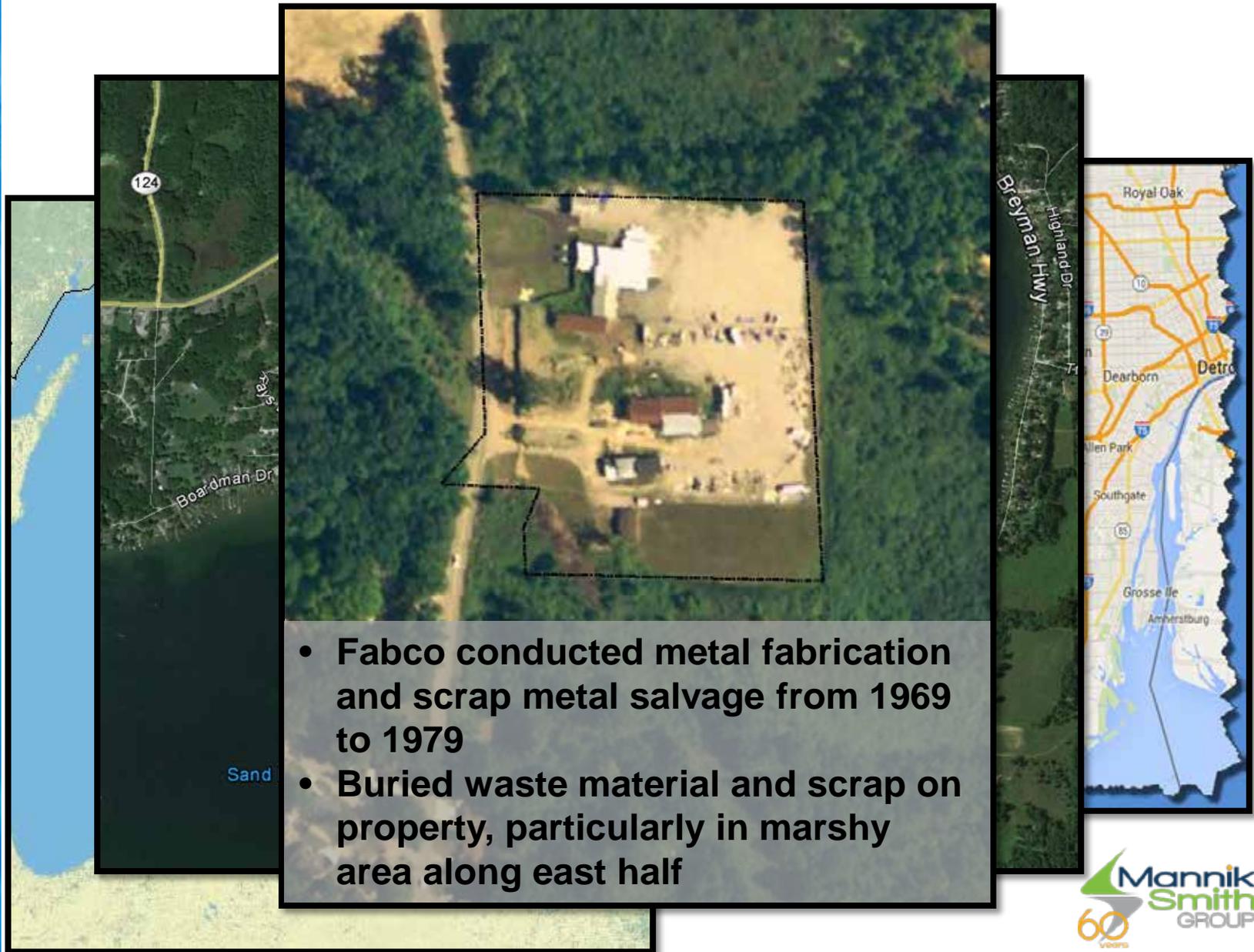
No Further Action (NFA) on a Portion of a Facility

- **NFA Relies on Land and
Resource Use Restrictions**
- **Restrictive Covenants on two
parcels**

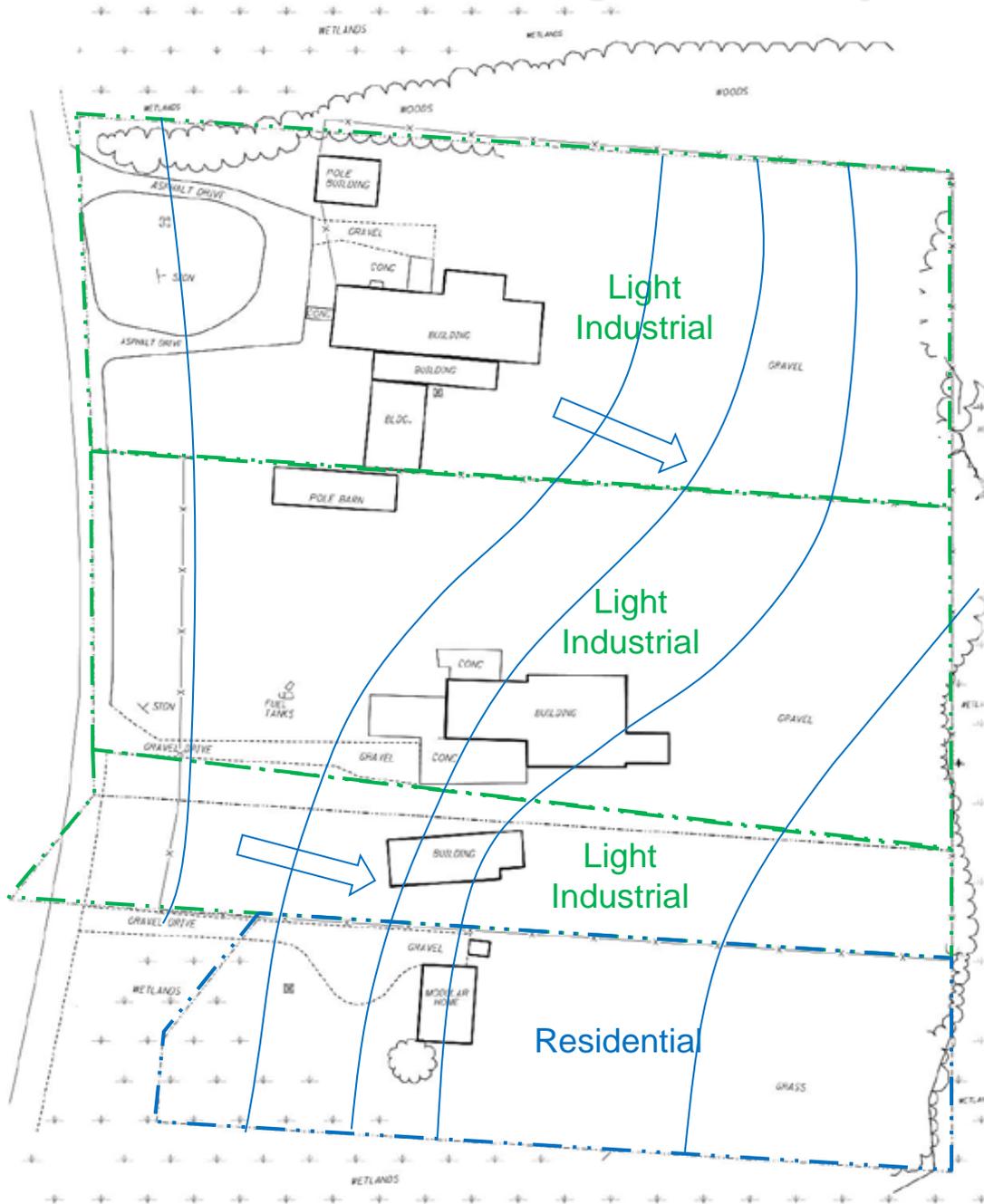


Background Picture-The Irish Hills Observatory

Former Fabco Fabricating Co. Facility



Former Fabco Fabricating Co. Facility



Site Layout

Four Properties

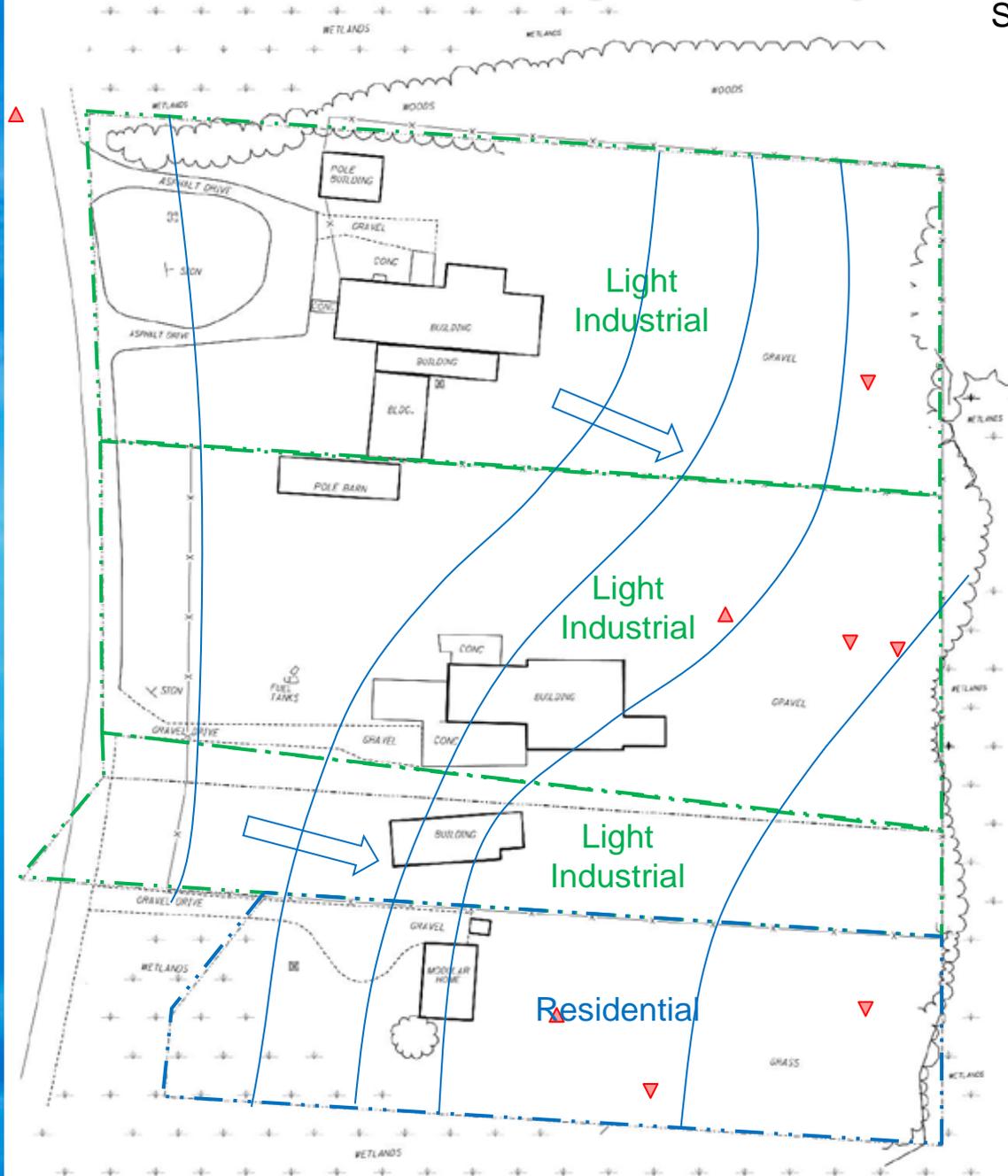
- 3 Light Industrial
- 1 Residential

Groundwater Flow to East and Southeast towards Wetlands

Former Fabco Fabricating Co. Facility

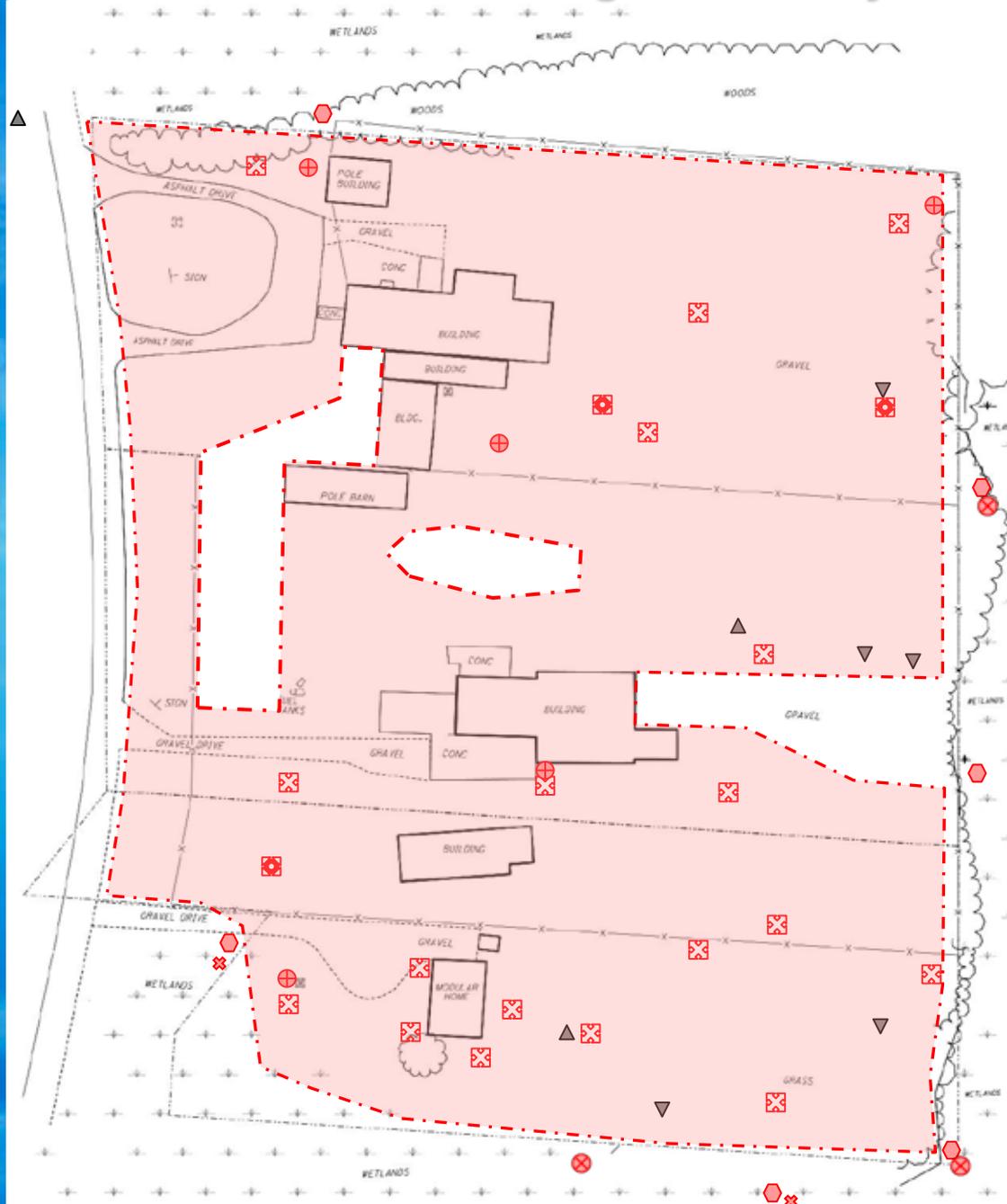
1990 - U.S. EPA Conducts Screening Site Inspection

- ▲ Soil Sample (3)
- ▼ Saturated Soil Sample (5)



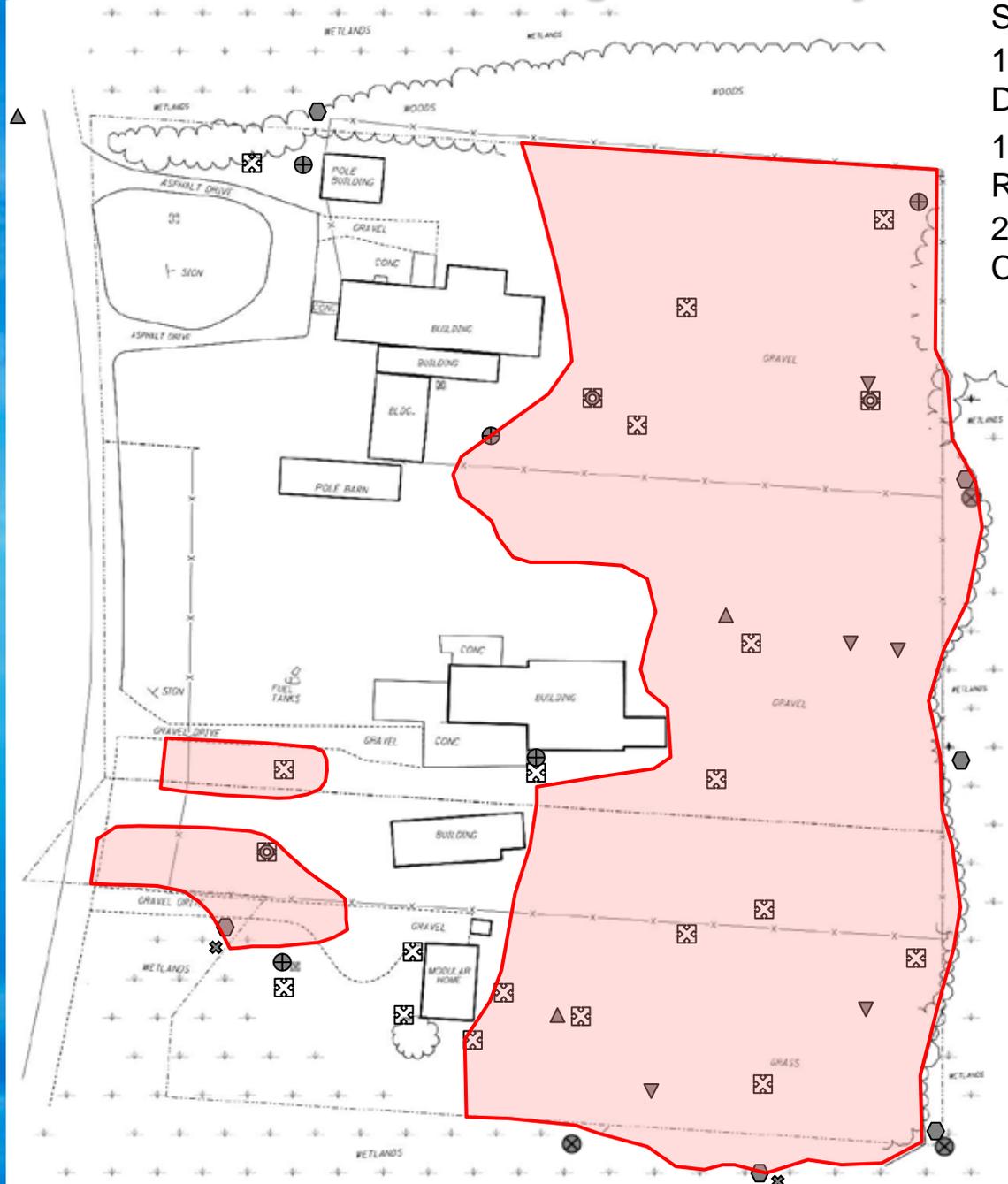
Former Fabco Fabricating Co. Facility

1990 - U.S. EPA Conducts Screening Site Inspection
 1996 - Drums Encountered During Utility Installation
 1998-99 - MDEQ Conducts Remedial Investigation



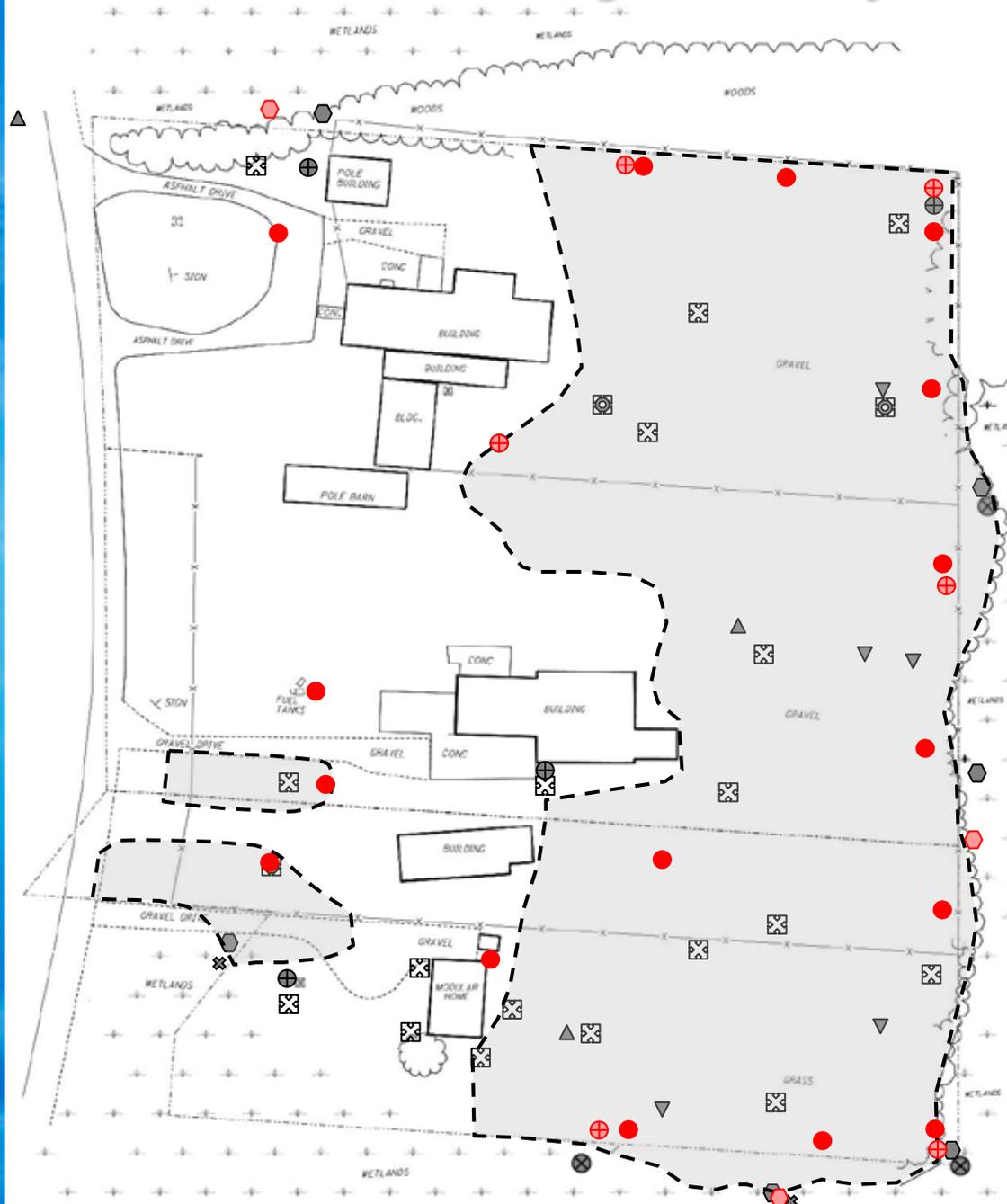
- Geophysical Survey
- X Test Pit (18)
- X Test Pit with Temp Well (3)
- + Temp Well (3)
- Sediment Sample (6)
- * Surface Water Sample (2)
- + Monitoring Well (5)

Former Fabco Fabricating Co. Facility



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2000 & 2002 - MDEQ Conducts IR Excavation

Former Fabco Fabricating Co. Facility



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2003 - PRP Agrees to Complete Response Actions
2004 - MSG Conducts Remedial Investigation and Establishes Path to Closure

- Soil Boring/temp well (16)
- ⊕ Monitoring Well (6)
- ⬡ Sediment Sample (3)

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Former Fabco Fabricating Co. Facility



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- 2007 - MSG Conducts Subsurface Investigation

- Geophysical Survey
- Test Trenches (11)
- ⊠ Test Pits (4)

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- 2008 - MSG Conducts 2 IR Excavations (North & South)

• Confirmation Samples (28)

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 - 2009 - MSG Conducts Supplemental Investigation
- ▭ Test Trench (11)
 - ◆ Sub-Slab Vapor Point (9)
 - ⊕ Monitoring Well (3)

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- 2009 - MSG Conducts Supplemental Investigation
- 2011 - MSG Expands IR North Excavation

• Confirmation Samples (19)

Former Fabco Fabricating Co. Facility



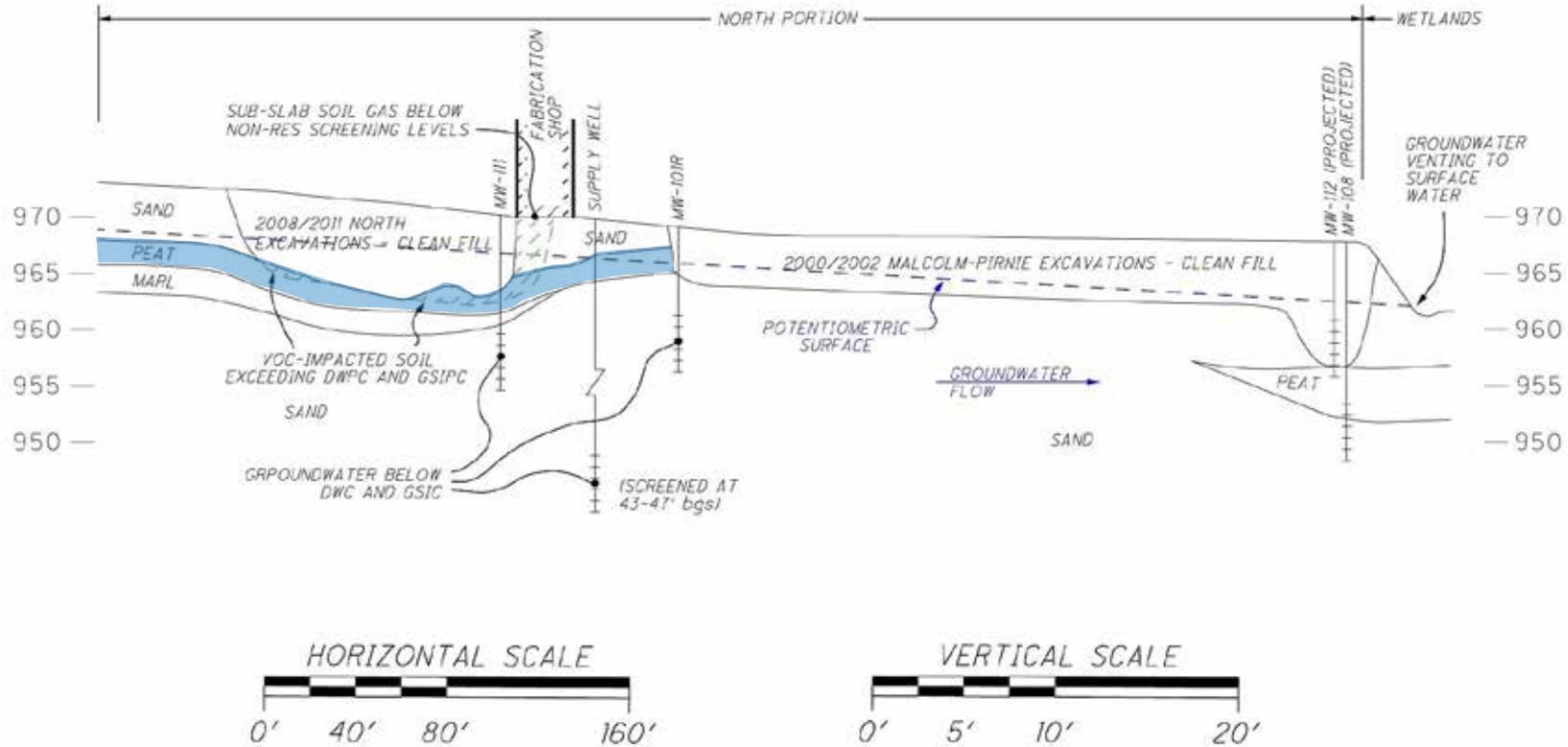
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- 2011 - MSG Expands IR North Excavation
- 2012-14 - MSG Conducts Supplemental Investigations

- ◆ Sub-Slab Soil Gas Sample (9)
- Soil Boring (11)
- ⊕ Monitoring Well Sample (10)
- ◆ Methane Assessment Sample (8)



Former Fabco Fabricating Co. Facility

Site Conceptual Model



Peat Layer appears to attenuate leachate from overlying soils impacted above DWPC and GSIPC

Former Fabco Fabricating Co. Facility



Current Conditions

Soil

Impacted soil above DWPC and GSIPC left in-place adjacent to structures and in confining peat layer

Groundwater

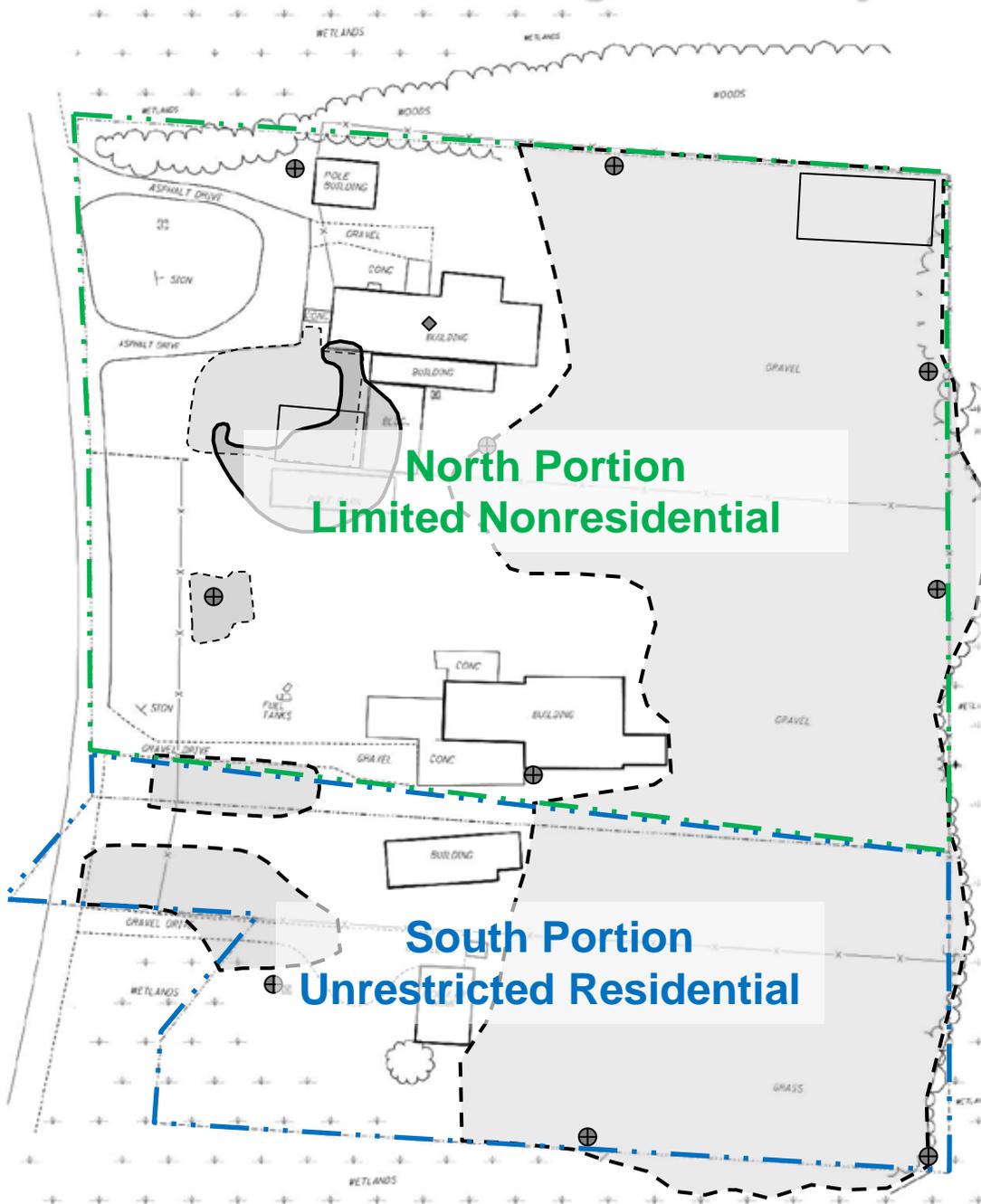
Current data shows no contaminants above Part 201 Criteria

Historical data showed only isolated exceedances of DWC and GSIC

Soil Gas

Exceedance of residential sub-slab screening level at one location, does not exceed non-residential

Former Fabco Fabricating Co. Facility



Part 201 Amendments

2010

- No Further Action Introduced
- Permanent Marker Waiver

2012

- NFA for Portion of Facility
 - North Portion
 - South Portion

2015

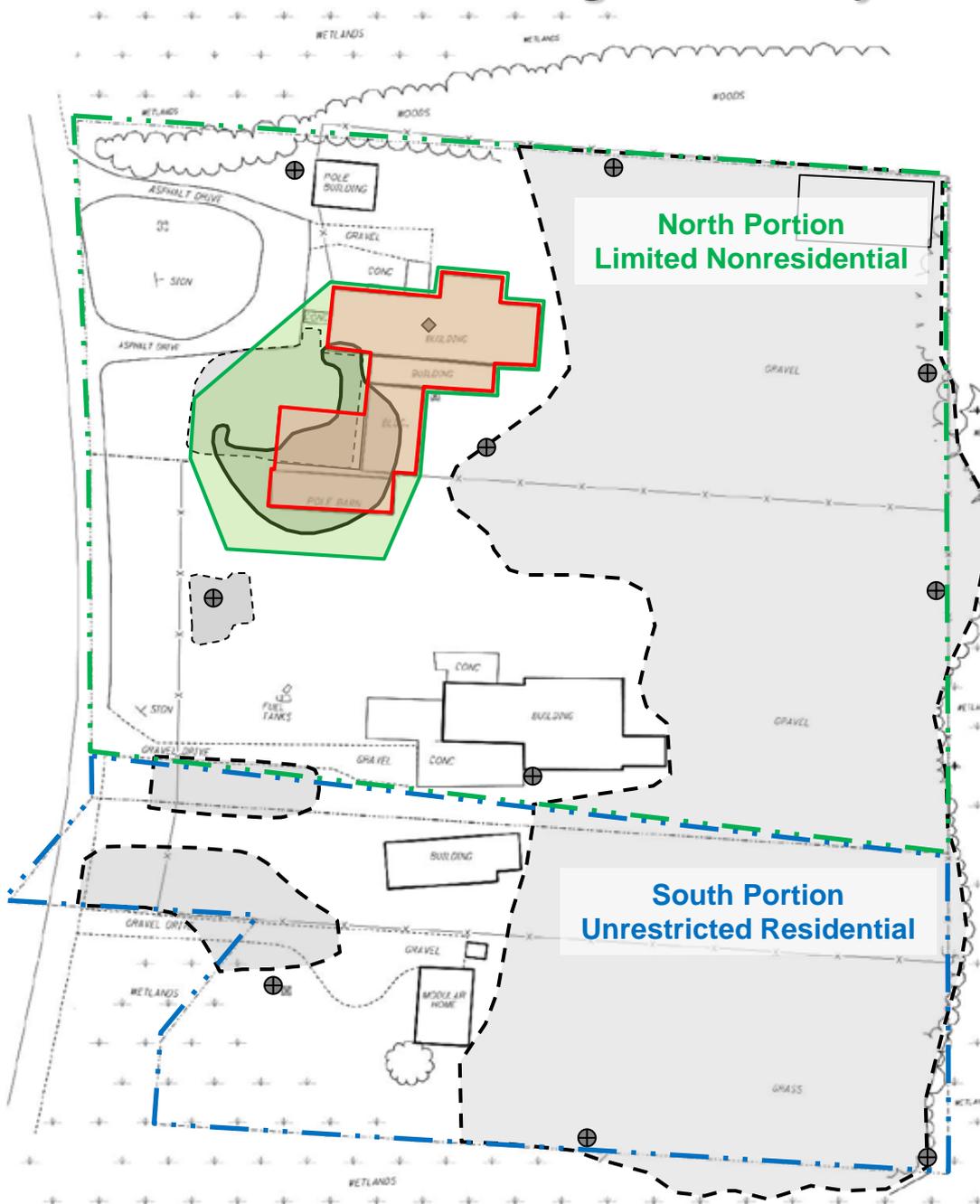
- New Sec. 21 combined all LRUR in one place

Land Use and Resource Use Restrictions (LRUR)

General Provisions

- Prevent exposure (or potential exposure) to contaminated groundwater or soil
 - Groundwater use restrictions
 - Restrict activities that would affect the integrity of barriers to prevent unacceptable exposures
 - Limits certain activities (i.e. excavation, buildings) unless certain actions are taken

Former Fabco Fabricating Co. Facility – North Portion



Restrictive Covenants to Address Remaining Pathways

Elements Common to Both RCs

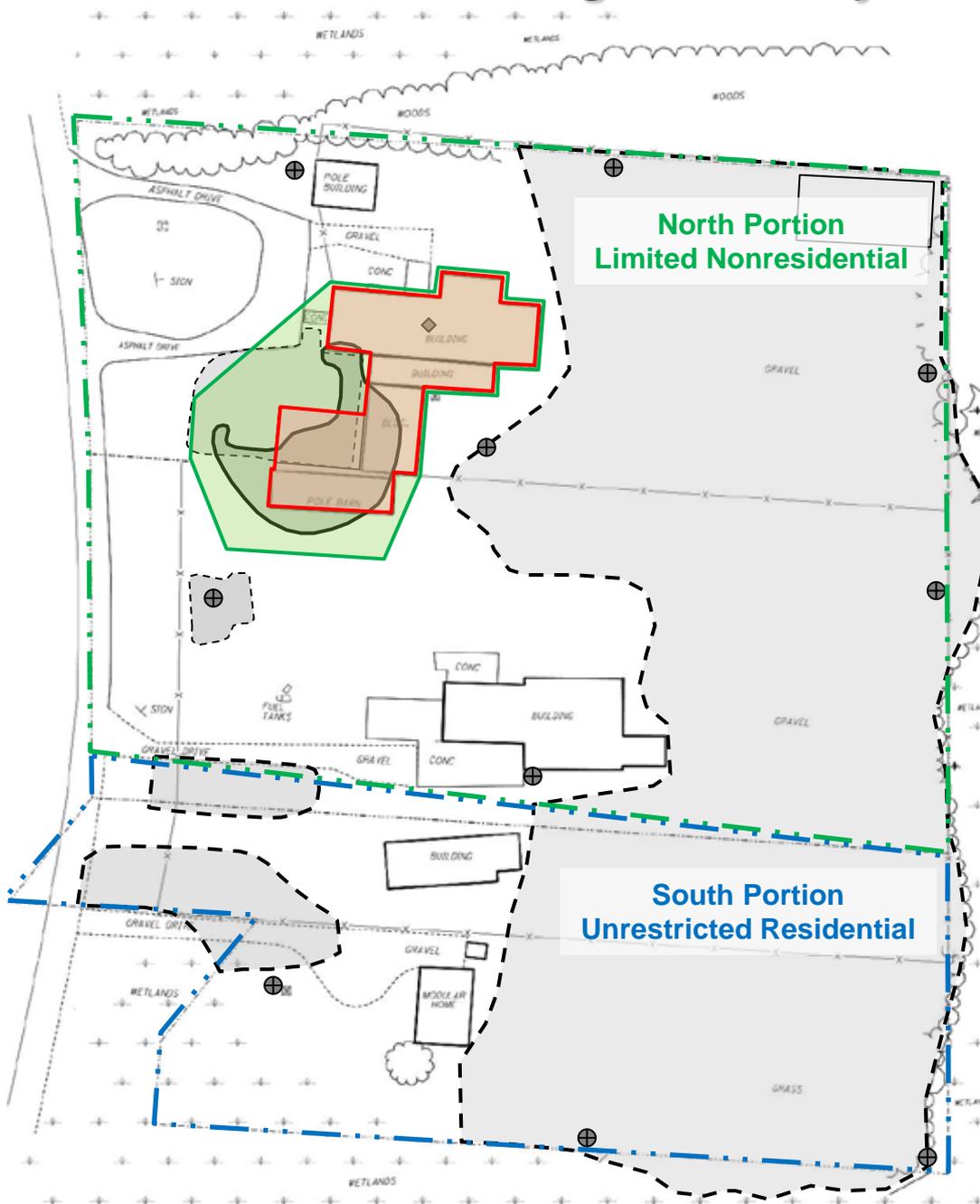
- Maintenance of Infiltration Barrier
- Restriction on Water Well Construction



Engineering Control is not a LRUR

- Infiltration barrier must be maintained (requirement, not restriction)

Former Fabco Fabricating Co. Facility – North Portion



Restrictive Covenants to Address Remaining Pathways

Elements Common to Both RCs

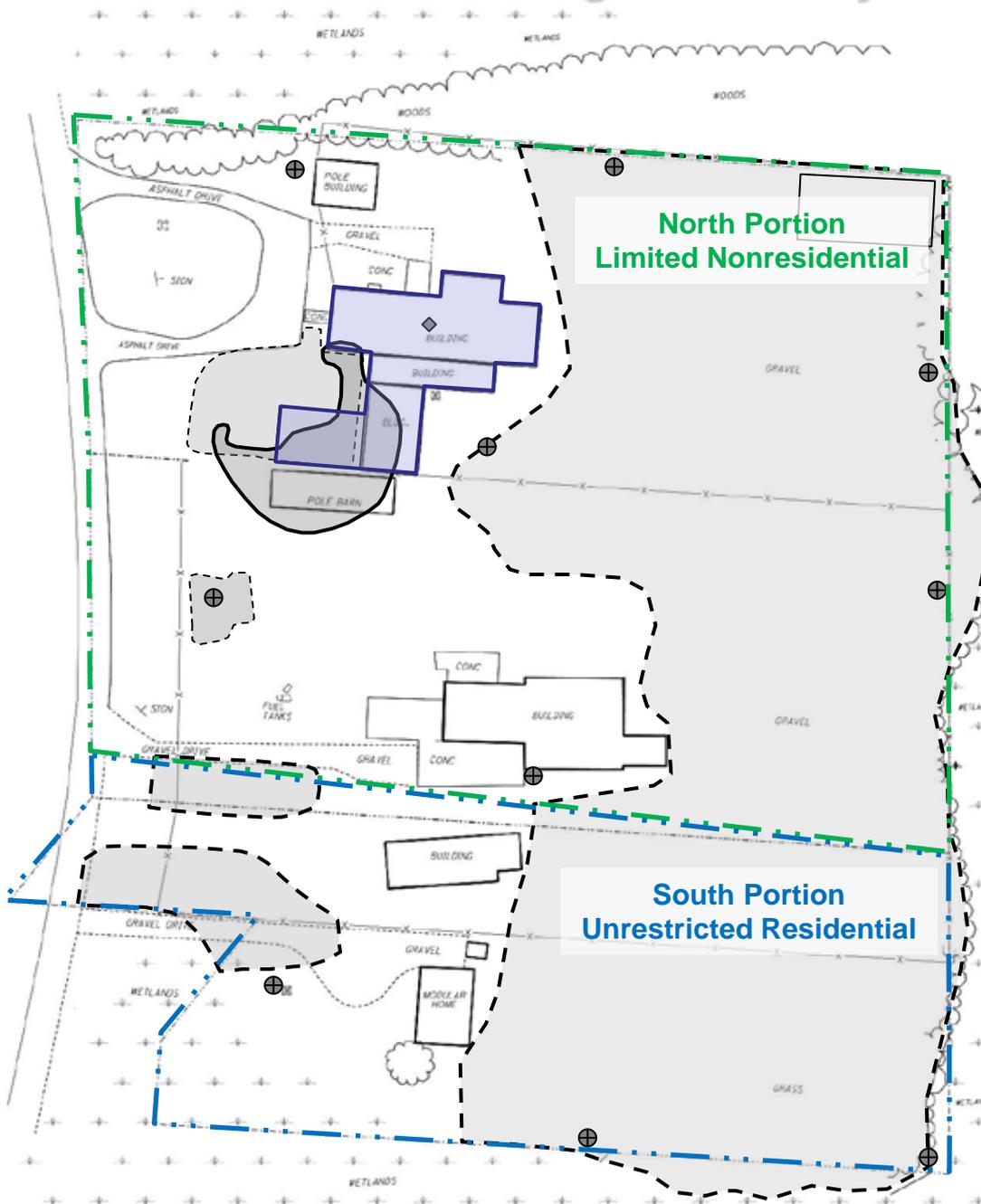
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Engineering Control is not a LRUR

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Former Fabco Fabricating Co. Facility – North Portion



Restrictive Covenants to Address Remaining Pathways

Additional Element on Northern-most Parcel

- Restriction on Residential Use to address vapor intrusion pathway



- Currently meets Nonresidential category so nonresidential use allowed
- Future residential use could be allowed if additional response actions are taken

Post Closure Agreement (PCA)

- Part 201 definition of a No Further Action (NFA) Report states a PCA is needed “if appropriate”
- Section 201 14d(3) states when a PCA is not needed
- A PCA is needed when:
 - Any operation, maintenance or monitoring is required
 - Engineering controls
 - Groundwater monitoring
- Financial assurance may or may not be required as a component of the PCA (de minimis)

Basic Elements of a PCA

- Annual monitoring & reporting
- Reopener if new conditions warrant
- Post Closure Plan (PCP) with:
 - LRUR
 - Permanent markers (PMs) unless waived
- Financial assurance if required
- Reimbursement of oversight costs
 - ∅ Provides liability protection upon DEQ approval

Necessity for PCA at Fabco

- Infiltration barrier is an engineering control, not a land use or resource use restriction
 - Section 20114c(2)(b)(iii) does not apply to engineering controls
- PCA is required in this case due to reliance on infiltration barriers

Post Closure Plan (PCP)

Per Section 20114c(2), PCP needed if unrestricted residential use is not met

- PCP includes:
 - Land & Resource Use Restrictions
 - Permanent Markers required if ONLY applicable LRUR
- Ø Infiltration barrier is an engineering control, not LRUR

Permanent Markers (PMs)

Sec 20114d(5) allows a PCA to waive the requirement for permanent markers

- NFA must include permanent markers as part of PCP, or
- Request and rationale for waiver of markers by DEQ
- Post closure agreement would document waiver of PMs

Wrap Up

- Affect of Part 201 amendments
- Collaboration
- These things take time

Questions?



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